Safran is planning to revolutionize on-board data transport with Flylight

Safran Electrical & Power has devised a fiber-optic system for on-board data transport, which will bypass electrical cables, to support the growing number of connected cabin components. This system, Flylight, will be on Safran’s stand at the Paris Air Show from June 17 through 23, 2019. It’s lighter, more efficient, simpler to set up and service, and bound to become the optimal interconnection solution for the aircraft of the future.

Sensors will tell you if your seat back is in the upright position, your table is stowed away and your seatbelt is properly fastened, luggage compartments will automatically report how full they are, all passengers will have internet access, and more: tomorrow’s aircraft cabins will treat passengers and crews to more convenience and more services. And “this will cause a significant increase in the amount of data exchanged and transported on board,” explains Jean-Roch Cossa, head of product lines at Safran Electrical & Power. On the flipside, the electrical harnesses needed to carry that data could, in theory, render architectures more complex and aircraft significantly heavier.

That’s the issue Flylight solves: this solution from Safran Electrical & Power uses fiber optics to reinvent conventional data transport. “We’re going to design the backbone of the transport network. It will combine fiber-optic technology and a breakthrough from Cailabs, and be able to carry a practically limitless amount of data on a single shared network. It will include connection units near the cabin equipment, which will provide wired or wireless connections,” Jean-Roch continues. This system will simplify design, save weight and pay for itself over an aircraft’s life cycle.

Flylight can enhance all kinds of aircraft but will be most profitable on airliners’ and leasing companies’ long haulers. Firstly because it can carry exponential amounts of data, secondly on account of the installation and maintenance convenience. “Nowadays, operators are changing aircraft cabins more and more often. Every time they do that, they have to redesign and replace a significant number of electrical harnesses. With Flylight, all they’ll have to do is replace the short links between the connection units and the equipment, without changing the network’s framework,” Jean-Roch explains.

This breakthrough will be available to airframers and airlines planning large-scale upgrades on existing aircraft or working on future aircraft programs: “It’s completely groundbreaking vis-à-vis our model today but it will also make sense for decades to come because it has the potential to carry so much data,” Jean-Roch wraps up.

Learn more

- The Safran stand at the 2019 Paris Air Show
- Safran and aviation’s electric future
- The e-Power conferences at Safran’s stand at the Paris Air Show